

REMARKS

Claims 1-4 and 6-24 are now pending in the application. Claims 1, 3, 4, 7-10, 16-19, and 22-24 are herein amended. Claim 5 is herein canceled. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-24 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Halsema et al. (U.S. Pat. No. 6,606,055). This rejection is respectfully traversed.

It is initially noted Claim 1 has been amended to recite in part:

“disposing a transmit antenna within a first antenna housing;
locating a receive antenna within a second antenna housing
independently positioned on the mobile platform with respect to the first
housing;
converting a receive antenna signal to an aircraft communication
frequency signal within the second antenna housing;
changing the aircraft communication frequency signal into a transmit
antenna signal within the first antenna housing.”

Support for this amendment is found in paragraphs [0022], [0023], [0029], [0030], and [0032] of the specification.

Halsema et al. '055 discloses a phased array antenna structure 22 which includes an n-element array 26 of phased array elements included with an antenna interface unit (AIU) 30. See column 5, lines 4-10. AIU 30 also includes a power

converter 74, a controller 42, a transmit/receive module 48 and an input/output module 74a mounted collectively on a mounting plate 76. See Figure 4. Halsema et al. also discloses that the "array 26 is operative with a radome 80." See column 6, line 15. Halsema et al. further discloses a plurality of the phased array antenna structures each including both transmit and receive modules are disbursed around an aircraft in a manner to provide substantially spherical antenna coverage around the aircraft." See figures 5-8 and column 2, lines 10-14.

Halsema et al. does not disclose separate transmit and receive antennas each disposed within their own transmit and receive antenna housings, respectively. Although Halsema et al. discloses a radome as noted above, Halsema's radome is noted as being associated with the phased array elements and is therefore not equivalent to Applicant's housings which completely enclose individual ones of the transmit and receive antennas in addition to the remaining antenna equipment.

Halsema et al. therefore does not anticipate amended Claim 1. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 102(b) rejection of Claim 1. Because Claims 2-4 and 6-8 depend from Claim 1, Claims 2-4 and 6-8 are not anticipated by Halsema et al. for at least the reasons noted above for Claim 1 and separately because each defines equipment disposed or operable within a separate one of the transmit or receive antenna housings, which is not disclosed by Halsema et al. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 102(b) rejections of Claims 2-4 and 6-8.

It is initially noted Claim 8 has been amended to recite in part:

“housing the transmit antenna together with a transmit antenna
equipment group in a first housing;
enclosing the receive antenna together with a receive antenna
equipment group in a second housing independent of the first housing.”

Support for this amendment is found in paragraphs [0022], [0023], [0029], [0030],
and [0032] of the specification.

For at least the same reasons noted above with respect to Claim 1, Halsema et al.
does not disclose housing the transmit antenna together with a transmit antenna
equipment group in a first housing and enclosing the receive antenna together with a
receive antenna equipment group in a second housing independent of the first housing
as recited in amended Claim 8. Halsema et al. therefore cannot anticipate amended
Claim 8. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 102(b)
rejection of Claim 8. Because Claims 10-15 depend from Claim 8, Claims 10-15 are not
anticipated by Halsema et al. for at least the reasons noted above for Claim 8 and
separately because each defines equipment disposed or operable within a separate one
of the housings, which is not disclosed by Halsema et al. The Examiner is respectfully
requested to withdraw the 35 U.S.C. § 102(b) rejections of Claims 10-15.

It is initially noted Claim 16 has been amended to recite in part:

“separately locating each of the transmit antenna and the receive antenna in one of a transmit antenna and receive antenna housing, the transmit and receive antenna housings oriented in a fore-aft configuration with respect to each other;

arranging a plurality of phased array antenna elements in both the transmit antenna and the receive antenna; and

converting an antenna power transfer voltage to a phased array antenna operating voltage within each housing.”

Support for this amendment is found in paragraphs [0022], [0023], [0029], [0030], and [0032] of the specification.

For at least the same reasons noted above with respect to Claim 1, Halsema et al. does not disclose housing the transmit antenna together in a transmit antenna housing and enclosing the receive antenna in a receive antenna housing separately located from the transmit housing as recited in amended Claim 16. Halsema et al. also does not disclose orienting each of a transmit and a receive antenna housing in a fore-aft configuration. Halsema et al. therefore cannot anticipate amended Claim 16. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 102(b) rejection of Claim 16. Because Claims 17-24 depend from Claim 16, Claims 17-24 are not anticipated by Halsema et al. for at least the reasons noted above for Claim 16 and separately because each defines equipment disposed or operable within a separate one of the housings, which is not disclosed by Halsema et al. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 102(b) rejections of Claims 17-24.

AMENDED CLAIMS

Claims 3, 4, and 7 have been amended to correspond to the amendments made to Claim 1 to distinguish a first from a second antenna housing which define over the recited art of Halsema et al. The Examiner is respectfully requested to enter amended Claims 3, 4, and 7.

Claim 9 has been amended to clarify that the conversion from an aircraft service voltage to an antenna power transfer voltage occurs within an envelope of the mobile platform. Support for this amendment is found in paragraph [0011] of the specification. The Examiner is respectfully requested to enter amended Claim 9.

Claim 10 has been amended to correspond to the amendments made to Claim 8 to distinguish a first from a second antenna housing which define over the recited art of Halsema et al. The Examiner is respectfully requested to enter amended Claim 10.

Claims 17, 19, and 22-24 have been amended to correspond to the amendments made to Claim 16 to distinguish the transmit from the receive antenna housings which define over the recited art of Halsema et al. The Examiner is respectfully requested to enter amended Claims 17, 19, and 22-24.


Claim 18 has been amended to correspond to the amendments made to Claim 16 to distinguish a first from a second antenna housing and to identify the antenna operating voltage operates in a range of about 3 to 6 volts direct current which define over the recited art of Halsema et al. Support for this amendment is found in paragraph [0034] of the specification. The Examiner is respectfully requested to enter amended Claim 18.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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